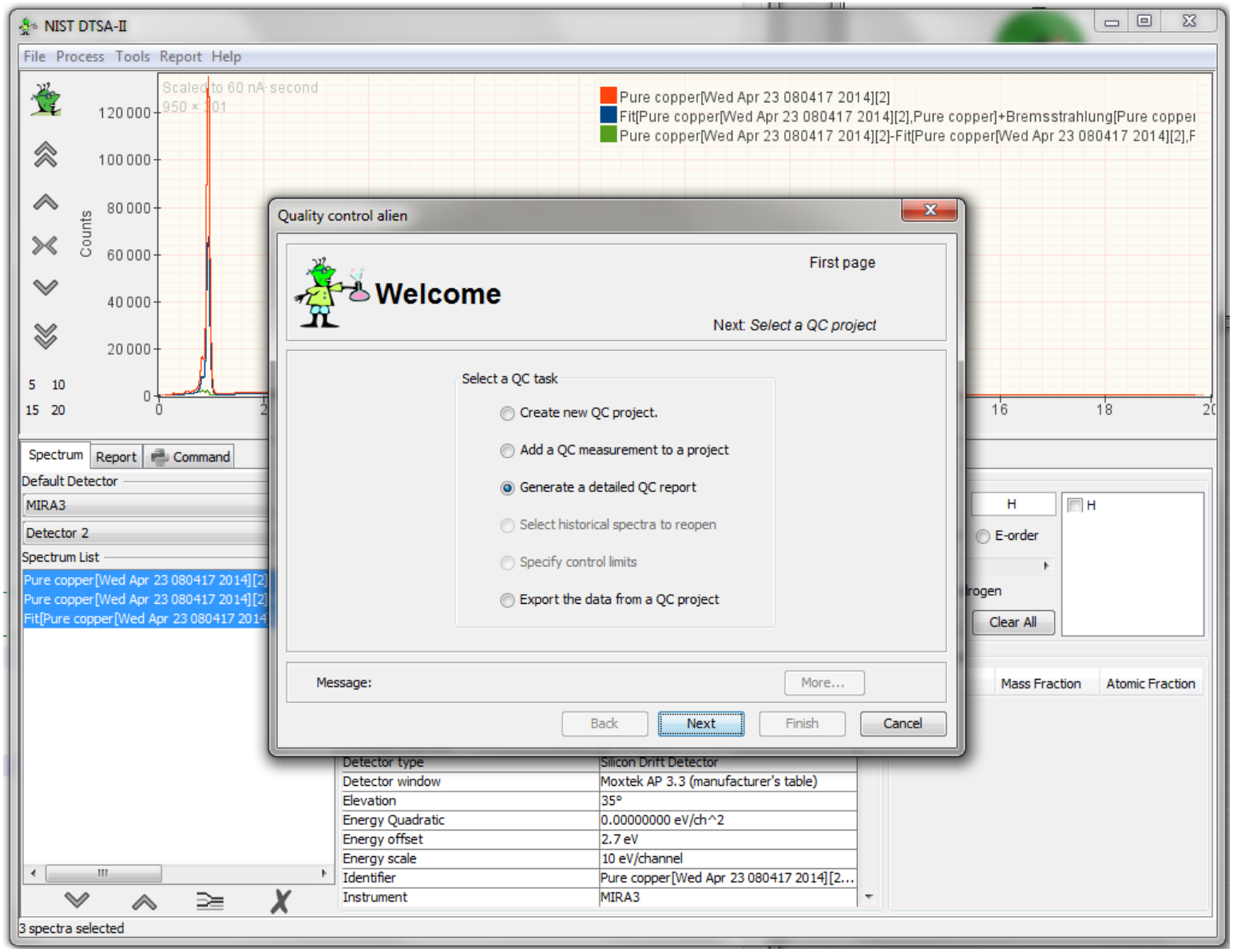
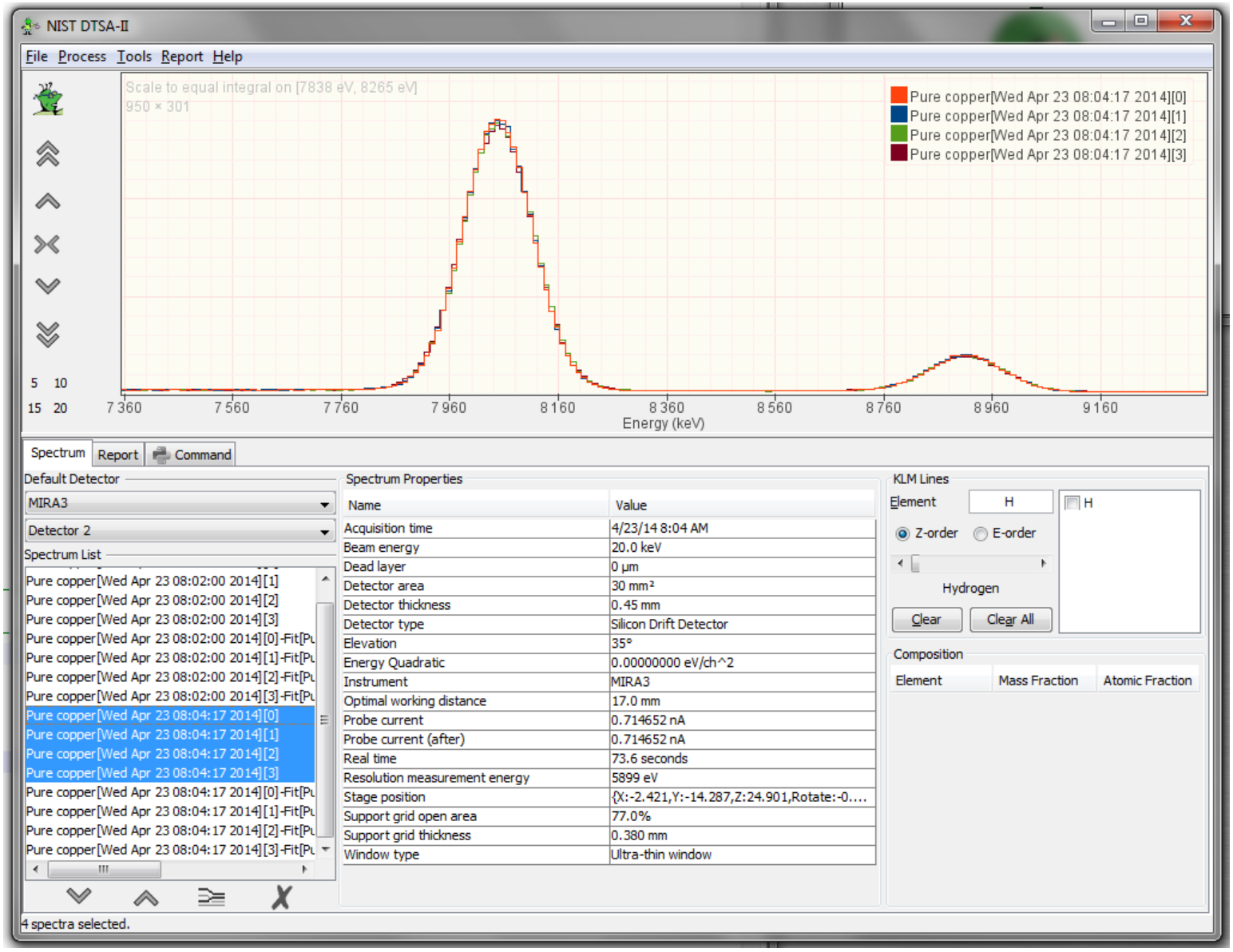
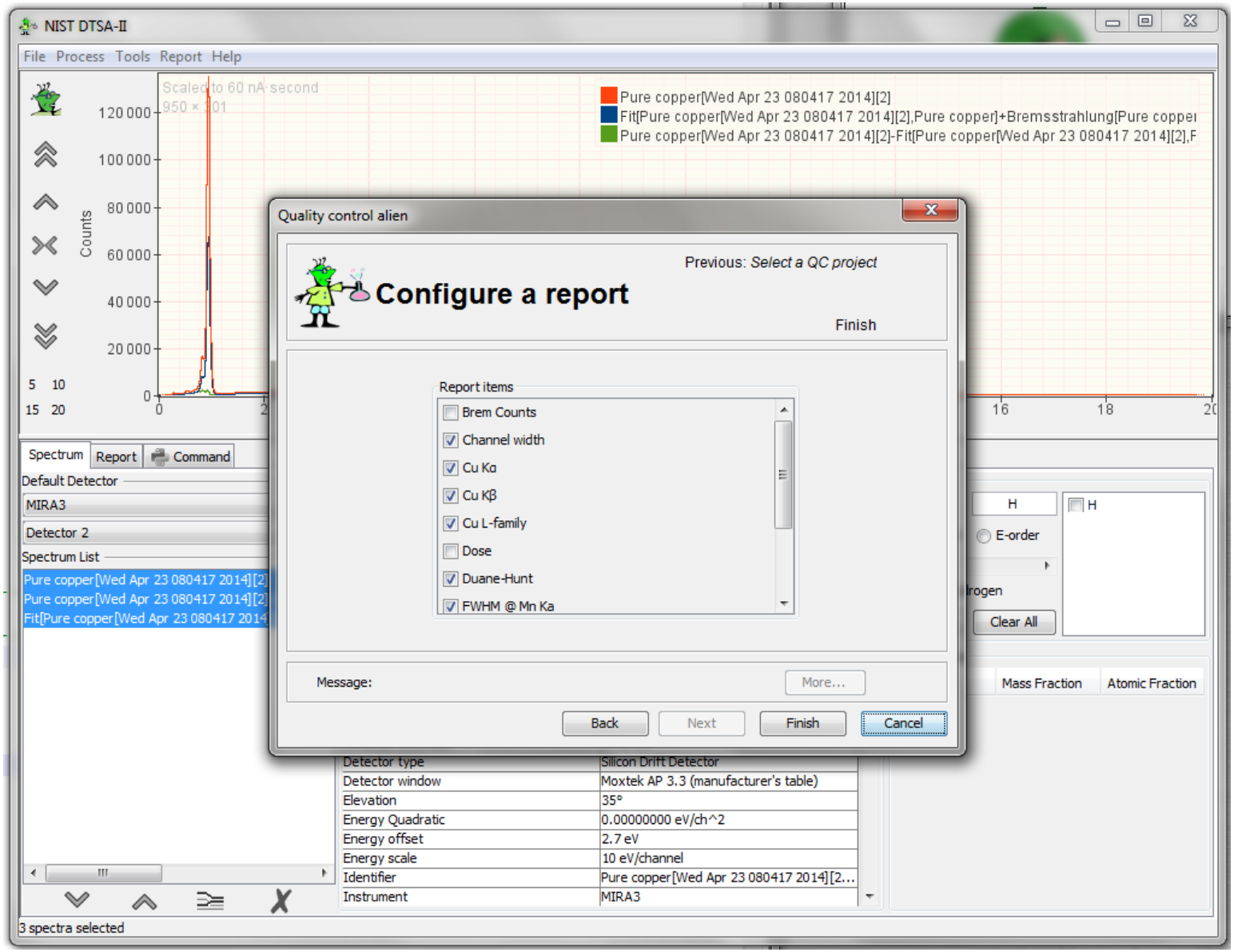
Generating control charts

How to show a non-technical manager that your process is under control


NIST DTSA-II
File Process Tools Report Help
Scaled to 60 nA·second
950 × 701
Pure copper[Wed Apr 23 080417 2014][2]
Fit[Pure copper[Wed Apr 23 080417 2014][2],Pure copper]+Bremsstrahlung[Pure copper
Pure copper[Wed Apr 23 080417 2014][2]-Fit[Pure copper[Wed Apr 23 080417 2014][2],F
Counts
120 000
100 000
80 000
60 000
40 000
20 000
0
5 10
15 20
16
18
Quality control alien
First page
Welcome
Next: Select a QC project
Select a QC task
Create new QC project.
Add a QC measurement to a project
Generate a detailed QC report
Select historical spectra to reopen
Specify control limits
Export the data from a QC project
Message:
More...
Back
Next
Finish
Cancel
Spectrum
Report
Command
Default Detector
MIRA3
Detector 2
Spectrum List
Pure copper[Wed Apr 23 080417 2014][2]
Pure copper[Wed Apr 23 080417 2014][2]
Fit[Pure copper[Wed Apr 23 080417 2014
H
E-order
Clear All
Mass Fraction
Atomic Fraction
Detector type
Silicon Drift Detector
Detector window
Moxtek AP 3.3 (manufacturer's table)
Elevation
35°
Energy Quadratic
0.00000000 eV/ch^2
Energy offset
2.7 eV
Energy scale
10 eV/channel
Identifier
Pure copper[Wed Apr 23 080417 2014][2...
Instrument
MIRA3
3 spectra selected


NIST DTSA-II
File Process Tools Report Help
Scale to equal integral on [7838 eV, 8265 eV]
950 × 301
Pure copper[Wed Apr 23 08:04:17 2014][0]
Pure copper[Wed Apr 23 08:04:17 2014][1]
Pure copper[Wed Apr 23 08:04:17 2014][2]
Pure copper[Wed Apr 23 08:04:17 2014][3]
5 10
15 20
7 360
7 560
7 760
7 960
8 160
8 360
8 560
8 760
8 960
9 160
Energy (keV)
Spectrum
Report
Command
Default Detector
MIRA3
Detector 2
Spectrum List
Pure copper[Wed Apr 23 08:02:00 2014][1]
Pure copper[Wed Apr 23 08:02:00 2014][2]
Pure copper[Wed Apr 23 08:02:00 2014][3]
Pure copper[Wed Apr 23 08:02:00 2014][0]-Fit[Pu
Pure copper[Wed Apr 23 08:02:00 2014][1]-Fit[Pu
Pure copper[Wed Apr 23 08:02:00 2014][2]-Fit[Pu
Pure copper[Wed Apr 23 08:02:00 2014][3]-Fit[Pu
Pure copper[Wed Apr 23 08:04:17 2014][0]
Pure copper[Wed Apr 23 08:04:17 2014][1]
Pure copper[Wed Apr 23 08:04:17 2014][2]
Pure copper[Wed Apr 23 08:04:17 2014][3]
Pure copper[Wed Apr 23 08:04:17 2014][0]-Fit[Pu
Pure copper[Wed Apr 23 08:04:17 2014][1]-Fit[Pu
Pure copper[Wed Apr 23 08:04:17 2014][2]-Fit[Pu
Pure copper[Wed Apr 23 08:04:17 2014][3]-Fit[Pu
Spectrum Properties
Name
Value
Acquisition time 4/23/14 8:04 AM
Beam energy 20.0 keV
Dead layer 0 µm
Detector area 30 mm²
Detector thickness 0.45 mm
Detector type Silicon Drift Detector
Elevation 35°
Energy Quadratic 0.00000000 eV/ch^2
Instrument MIRA3
Optimal working distance 17.0 mm
Probe current 0.714652 nA
Probe current (after) 0.714652 nA
Real time 73.6 seconds
Resolution measurement energy 5899 eV
Stage position {X:-2.421,Y:-14.287,Z:24.901,Rotate:-0....
Support grid open area 77.0%
Support grid thickness 0.380 mm
Window type Ultra-thin window
KLM Lines
Element H
H
Z-order
E-order
Hydrogen
Clear
Clear All
Composition
Element
Mass Fraction
Atomic Fraction
4 spectra selected.

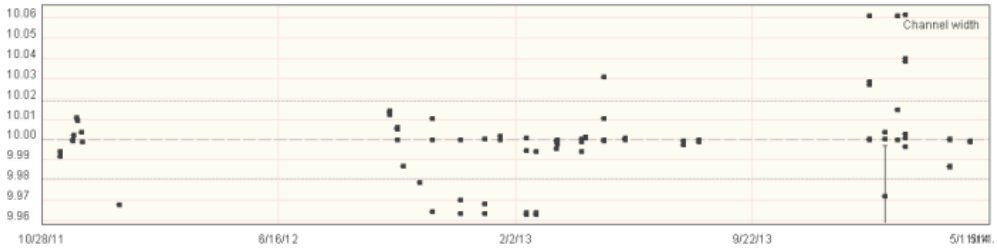

NIST DTSA-II
File Process Tools Report Help
Scaled to 60 nA·second
950 × 301
Pure copper[Wed Apr 23 080417 2014][2]
Fit[Pure copper[Wed Apr 23 080417 2014][2],Pure copper]+Bremsstrahlung[Pure copper
Pure copper[Wed Apr 23 080417 2014][2]-Fit[Pure copper[Wed Apr 23 080417 2014][2],F
Counts
120 000
100 000
80 000
60 000
40 000
20 000
0
5 10
15 20
Quality control alien
Previous: Select a QC project
Configure a report
Finish
Report items
Brem Counts
Channel width
Cu Kα
Cu Kβ
Cu L-family
Dose
Duane-Hunt
FWHM @ Mn Ka
Message:
More...
Back
Next
Finish
Cancel
Spectrum
Report
Command
Default Detector
MIRA3
Detector 2
Spectrum List
Pure copper[Wed Apr 23 080417 2014][2]
Pure copper[Wed Apr 23 080417 2014][2]
Fit[Pure copper[Wed Apr 23 080417 2014
H
E-order
Clear All
Mass Fraction
Atomic Fraction
Detector type
Silicon Drift Detector
Detector window
Moxtek AP 3.3 (manufacturer's table)
Elevation
35°
Energy Quadratic
0.00000000 eV/ch^2
Energy offset
2.7 eV
Energy scale
10 eV/channel
Identifier
Pure copper[Wed Apr 23 080417 2014][2...
Instrument
MIRA3
3 spectra selected

Quality Control Report - Apr 23, 2014

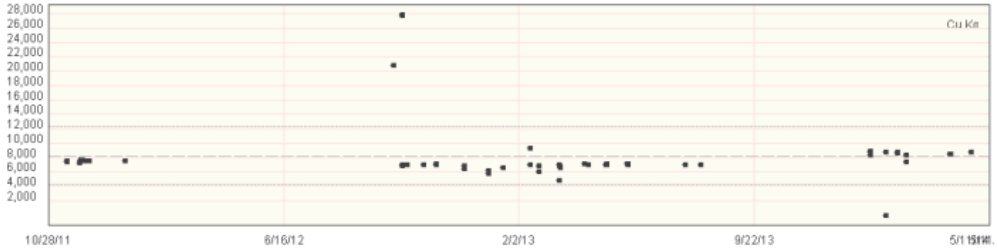
NIST DTSA-II Version	Halley 2014-04-04
EPQ Version	Halley 2014-04-04
Operator	Tescan

Item	Value
Detector	Detector 2 - FWHM[Mn Kα]=128.0 eV - initial
Beam Energy	20.0 keV
Material	Pure copper

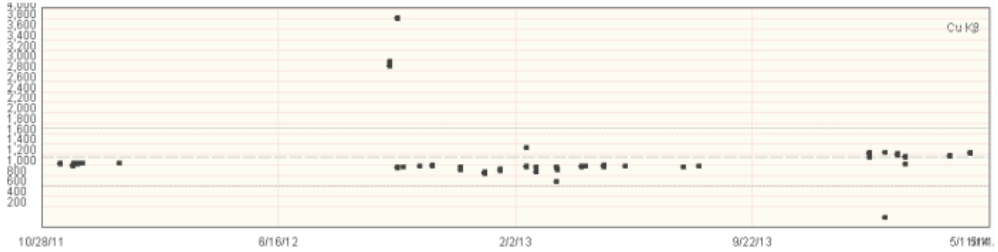
Channel width



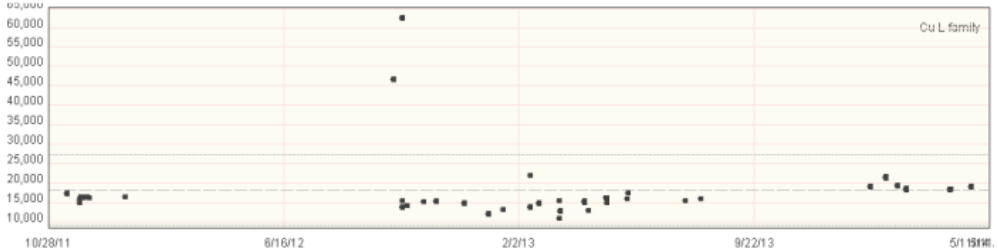
Cu Kα

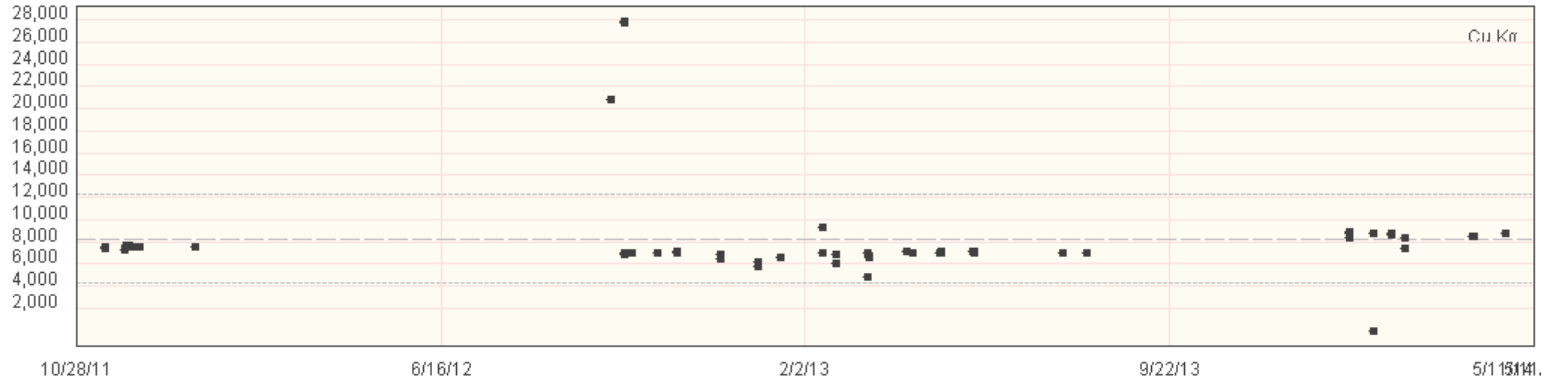


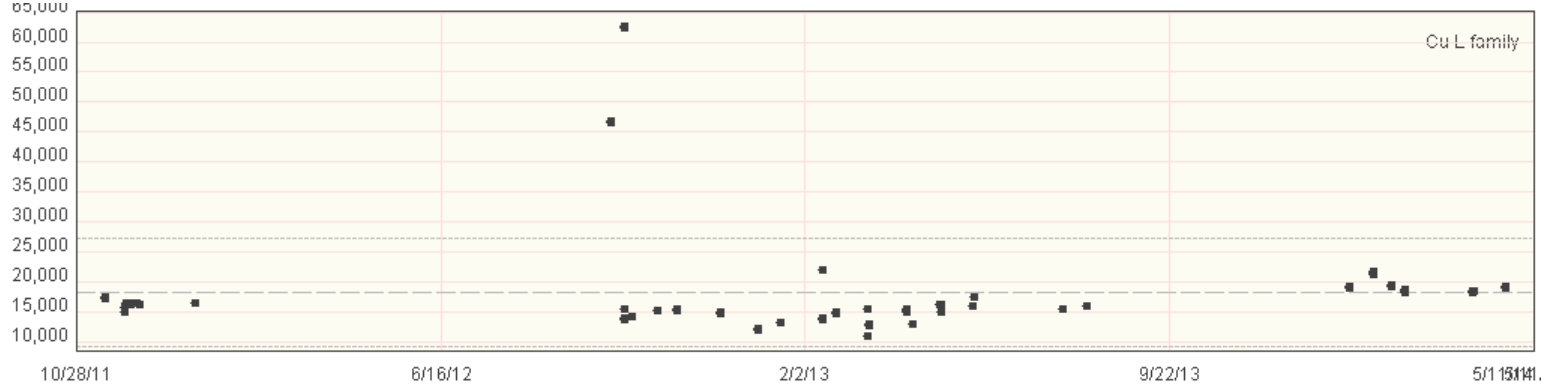
Cu Kβ



Cu L-family




Cu Kα
28,000
26,000
24,000
22,000
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
10/28/11
6/16/12
2/2/13
9/22/13


Cu L family
65,000
60,000
55,000
50,000
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
10/28/11
6/16/12
2/2/13
9/22/13


FWHM @ Mn Ka
160
158
156
154
152
150
148
146
144
142
140
138
136
134
132
130
10/28/11
6/16/12
2/2/13
9/22/13